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*North America's Leader in Hazardous Material Information Management*  
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## MSDS PRODUCT INFORMATION

Date: 10/07/2005  
To: MSDS Requester  
From: 3E Company  
Subject: The MSDS you have requested

☐ MSDS NOT REQUIRED

In response to your request for a Material Safety Data Sheet, according to the OSHA Hazard Communication Standard (Right-to-Know), the following item is an article. Articles are defined in 29 CFR 1910.1200(c). Products such as Drugs, cosmetics, food, or alcoholic beverages, wood or wood products, and tobacco or tobacco products, as defined in 29 CFR 1910.1200(b)(6), are exempt from the Hazard Communication Standard. Items that are considered articles, as defined in 29 CFR 1910.1200(c), are also exempt from this Standard. Therefore, the manufacturer is not required to provide an MSDS for this product.

☒ MSDS DISCONTINUED PRODUCT

In response to your request for a Material Safety Data Sheet, the manufacturer has discontinued the product listed below. The MSDS Attached is the most current version, or an MSDS is no longer available.

☐ MSDS BEST COPY AVAILABLE

The MSDS attached is the best copy available from the manufacturer.

☐ MANUFACTURER NO LONGER IN BUSINESS

In response to your request for a Material Safety Data Sheet, a current MSDS could not be obtained for this product. It has been determined that the manufacturer listed below is no longer in business. A current address and phone number could not be located.

Manufacturer: Solaris Group

Product Name: GroundClear Triox Total Vegetation Killer 1 (DISCONTINUED)

# MATERIAL SAFETY DATA SHEET



SOLARIS

DATE PREPARED: 09/16/1997

MSDS No: 6093

GroundClear Triox Total Vegetation Killer1

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** GroundClear Triox Total Vegetation Killer1**PRODUCT DESCRIPTION:** Herbicide

### MANUFACTURER

The SOLARIS Group  
of Monsanto Company  
P.O. Box 5008  
San Ramon, CA 94583-0808

### 24 HR. EMERGENCY TELEPHONE NUMBERS

**Emergency Phone** 800-225-2883**EPA REG. NO.:** 239-2657A **PN:** 6057

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Glyphosate, isopropylamine salt	5	38641-94-0
Imazapyr, isopropylamine salt	0.08	81510-83-0

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE:** clear to amber liquid.**IMMEDIATE CONCERNS:** CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY**DO NOT GET IN EYES OR ON CLOTHING**  
**KEEP OUT OF REACH OF CHILDREN**

### POTENTIAL HEALTH EFFECTS

**EYES:** This substance is a moderate eye irritant and causes substantial but temporary eye injury. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment. Signs and symptoms of overexposure may include discomfort, irritation and redness, and blurred vision. See

Toxicological Information, section 11.

**SKIN:** This substance is not expected to cause skin irritation. See Toxicological Information, section 11.

**INGESTION:** If swallowed, this substance is considered practically non-toxic to internal organs. See Toxicology Information, section 11.

**INHALATION:** If inhaled, this substance is considered practically non-toxic to internal organs. See Toxicological Information, section 11.

**SENSITIZATION:** This product contains trace quantities of methylisothiazolinone and methylchloroisothiazolinone as preservatives. At higher concentrations these preservatives have been shown to cause allergic skin reactions in susceptible individuals. These preservatives are also found in a number of widely used personal care products, such as shampoos and cosmetics.

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## 4. FIRST AID MEASURES

**EYES:** IF IN EYES, hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**SKIN:** Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**INGESTION:** IF SWALLOWED, call a physician or Poison Control Center. Do not induce vomiting. Give water to drink. Note to Physicians: Emergency information call 1-800-225-2883. Probable mucosal damage may contraindicate the use of gastric lavage.

**INHALATION:** If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation continues.

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## 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** >200°F TAG CC

**EXTINGUISHING MEDIA:** Alcohol Foam, CO<sub>2</sub>, Dry Chemical, Water Fog

**FIRE FIGHTING PROCEDURES:** This material will not burn. Smoke from fires involving this material may present unusual hazards. Avoid breathing smoke and mists. Avoid contact with fallout and runoff. Minimize the amount of water used for fire fighting. Foam fire-extinguishing system is preferred because uncontrolled water can spread contamination. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Read the entire document.

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## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Soak up spilled material with paper towels and discard in trash.

**LARGE SPILL:** Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgate, bentonite or other absorbent clays. Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

Do not contaminate water, foodstuffs or feed by storage or disposal.

**GENERAL PROCEDURES:** Observe all protection and safety precautions when cleaning up spills -- see Section 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION". For help with any spill, leak, fire or exposure involving this material, call day or night (800) 454-2333.

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Store product in original container in a safe place. Protect from freezing.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Use this material only in well ventilated areas.

### PERSONAL PROTECTION

**EYES AND FACE:** Wear chemical goggles or safety glasses to prevent eye contact during operations such as mixing or transfer or other activities when there is potential for eye contact. Have eye flushing equipment immediately available with enough fresh water to flush the eyes for at least 15 minutes.

**SKIN:** Although this product does not present a significant skin concern, minimize skin contamination by following good handling practices. Applicators and other handlers must wear: long sleeved shirt, long pants, and shoes with socks. Wash hands and contaminated skin thoroughly after handling.

**RESPIRATORY:** Avoid breathing vapor or mist. This product is not likely to pose an airborne exposure concern when handled and used in accordance with label instructions.

### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

**Chemical Name**

Imazapyr, isopropylamine salt

**EXPOSURE LIMITS****OSHA PEL ACGIH TLV ACGIH STEL**

None

None

None

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**9. PHYSICAL AND CHEMICAL PROPERTIES****PHYSICAL STATE:** Liquid**COLOR:** Clear to amber**pH:** ~7.48**BOILING POINT:** No Data Available**FREEZING POINT:** No Data Available**SOLUBILITY IN WATER:** Miscible with water.**DENSITY:** 8.63 lb/gal at 20°C**SPECIFIC GRAVITY:** 1.036 at 20°C**VISCOSITY:** Same as water.

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**10. STABILITY AND REACTIVITY****STABLE:** YES**HAZARDOUS POLYMERIZATION:** NO**INCOMPATIBLE MATERIALS:** Avoid contact with strong oxidizing and reducing agents. Corrosive to mild steel and brass.

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**11. TOXICOLOGICAL INFORMATION****ACUTE****EYES:** Rabbit - Moderately irritating, corneal involvement and conjunctivitis cleared by day 14.

EPA FIFRA toxicity category - II.

**DERMAL LD<sub>50</sub>:** Rat = > 5.0g/kg. **SKIN IRRITATION:** Rabbit - slight irritation PIS 1.5/8.

EPA FIFRA toxicity category - IV.

**ORAL LD<sub>50</sub>:** Rat = > 5.0 g/kg.

EPA FIFRA toxicity category - IV.

INHALATION LC<sub>50</sub>: Rat - 4-hour inhalation = >2.4 mg/l.

EPA FIFRA toxicity category - IV.

**SENSITIZATION:** Guinea pig - no evidence of allergic skin reactions following repeated skin exposure.

## **CARCINOGENICITY:**

**CARCINOGENICITY COMMENTS: GLYPHOSATE:** Glyphosate is not considered to be a carcinogen. Glyphosate did not produce tumors in any of the long-term toxicology studies. EPA has classified glyphosate in category "E" (Evidence of noncarcinogenicity for humans).

Mice: 2-year feeding study. Reduced body weight gain and effects on liver tissues were observed at high dose levels.

Rats: 2-year feeding study. Reduced body weight gain and eye changes were observed at the high dose level in one study, while no treatment related effects occurred in a second study conducted at lower dose levels.

Dogs: No adverse effects were observed in feeding studies with dogs.

IMAZAPYR: Not a carcinogen based on the results of the chronic feeding studies in rats and mice. EPA classes imazapyr in Group E (no evidence of carcinogenicity in at least 2 adequate animal tests in different species.). Not listed as a human carcinogen by IARC, OSHA or NTP.

**TERATOGENICITY: GLYPHOSATE:** No evidence of teratogenic effects. Results of rat and rabbit teratology studies indicate that no birth defects were noted. This included dose levels of glyphosate that were maternally toxic. IMAZAPYR: Results of rat and rabbit teratology studies did not reveal any teratogenic or fetotoxic effects.

**REPRODUCTIVE TOXIN: GLYPHOSATE:** No evidence of adverse reproductive effects. Glyphosate was fed continuously to rats at very high dose levels for 2 successive generations. Toxicity was reported in offspring from the high dose, a level which also produced adverse effects on the mothers. In a 3-generation study conducted at lower dose levels, no effects were seen on the ability of male or female rats to reproduce. IMAZAPYR: No data available.

**MUTAGENICITY: GLYPHOSATE:** Glyphosate has not produced any genetic changes in various mutagenicity tests involving animals and animal or bacterial cells. IMAZAPYR: Technical imazapyr is not considered a mutagen. Test results were negative re unscheduled DNA synthesis rat hepatocyte assay, in vitro Chinese hamster ovary (CHO)/hypoxanthine guanine phosphoribosyl transferase (HGPRT) mutation assay, bacterial/microsome reverse mutation (Ames) test and in vitro chromosomal aberrations in Chinese hamster ovary cells.

**COMMENTS:** See Section 16 for definition of EPA FIFRA toxicity categories.

## **12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL DATA:** No data available.

## 13. DISPOSAL CONSIDERATIONS

**FOR LARGE SPILLS:** Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

**PRODUCT DISPOSAL:** The Solaris Group is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.

If necessary to dispose of partially filled product container, then securely wrap it in several layers of newspaper and discard in trash.

**EMPTY CONTAINER:** Do not reuse container. Wrap empty container in several layers of newspaper and discard in trash.

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## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Not Regulated

**PRIMARY HAZARD CLASS/DIVISION:** None

**UN/NA NUMBER:** NONE

**PACKING GROUP:** No

**U.S. SURFACE FREIGHT CLASS:** Tree or weed killing compounds, NOI, Density of 20 lbs. or greater per cu. ft.

### AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** Not Regulated

**SPECIAL SHIPPING NOTES:** The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

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## 15. REGULATORY INFORMATION

### UNITED STATES

### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

<b>PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA</b>
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<b>ACUTE:</b>	<b>CHRONIC:</b>	<b>FIRE:</b>	<b>REACTIVITY:</b>	<b>PRESSURE</b>
YES	NO	NO	NO	<b>GENERATING: NO</b>

## **TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA REGULATORY:** All non FIFRA regulated components are on the US EPA's TSCA Inventory List.

## **16. OTHER INFORMATION**

### **HMIS CODES**

**FIRE: 0 HEALTH: 3 REACTIVITY: 0 PROTECTION: -**

### **NFPA CODES**

**FIRE: 0 HEALTH: 3 REACTIVITY: 0 SPECIAL: -**

**APPROVAL DATE:** 09/28/1998

**REVISION SUMMARY** New MSDS

**MANUFACTURER SUPPLEMENTAL NOTES:** EPA FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) Toxicity Categories: The EPA toxicity categories are based on the results of the acute toxicology studies. The toxicology findings are compared to the FIFRA criteria to determine the product label signal word, precautionary and first aid statements. The EPA FIFRA toxicity category summary:

EPA FIFRA Product Label Toxicity Rating  
Toxicity Category Signal Word

I DANGER Most toxic and irritating  
II WARNING  
III CAUTION  
IV CAUTION Least toxic and irritating

**COMMENTS:** For additional information concerning this product, call the SOLARIS Groups Consumer Helpline at 800-225-2883.

**MANUFACTURER DISCLAIMER:** This Material Safety Data Sheet (MSDS) contains health, safety and environmental information for you and your employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label. Information contained in this MSDS will help you to prepare for emergency response and to meet community right-to-know, emergency response and reporting requirements under SARA Title III and many other laws. Emergency response agencies and health care providers will also find this additional information useful.

Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved label copy. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.



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